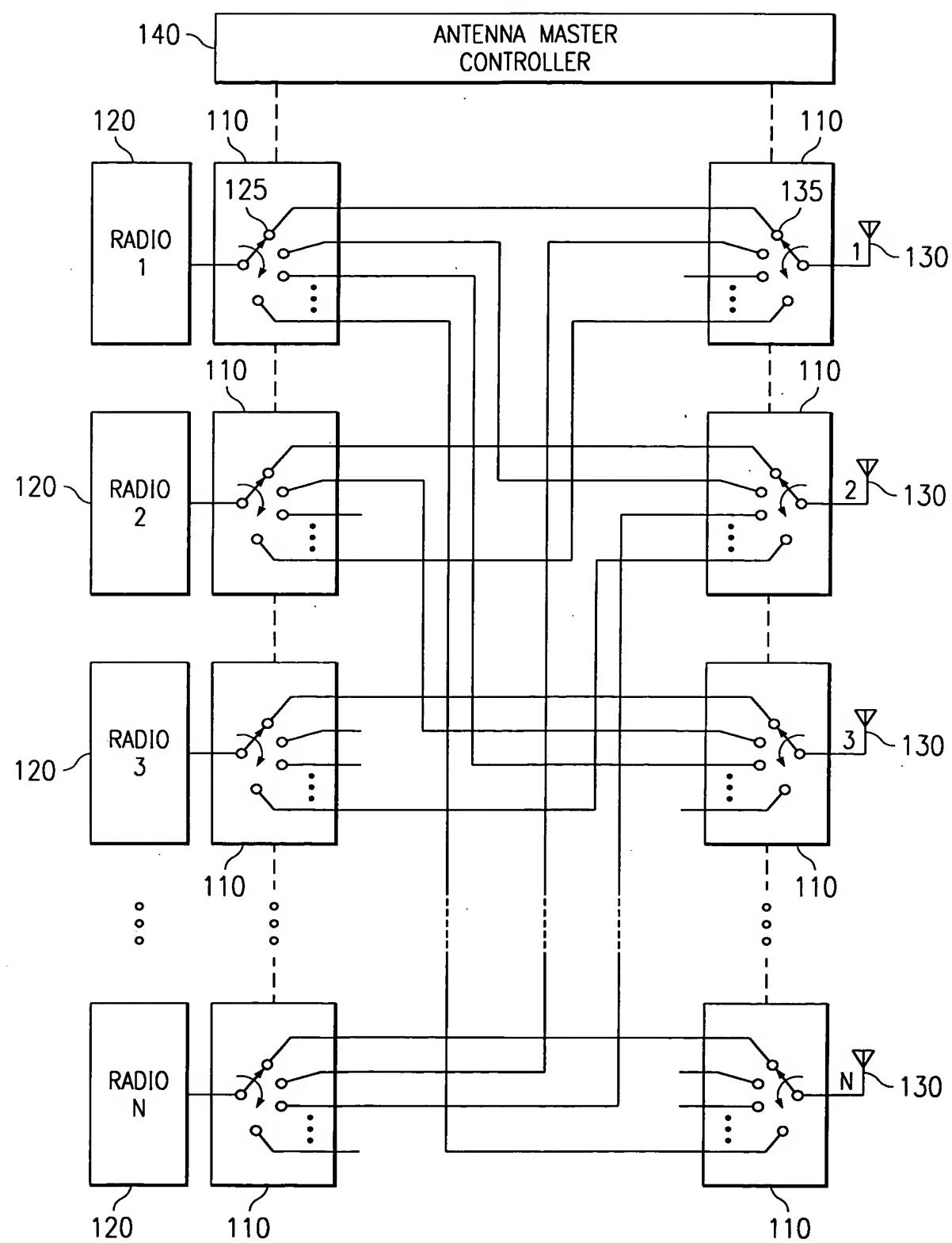


FIG. 1



3/5

FIG. 5

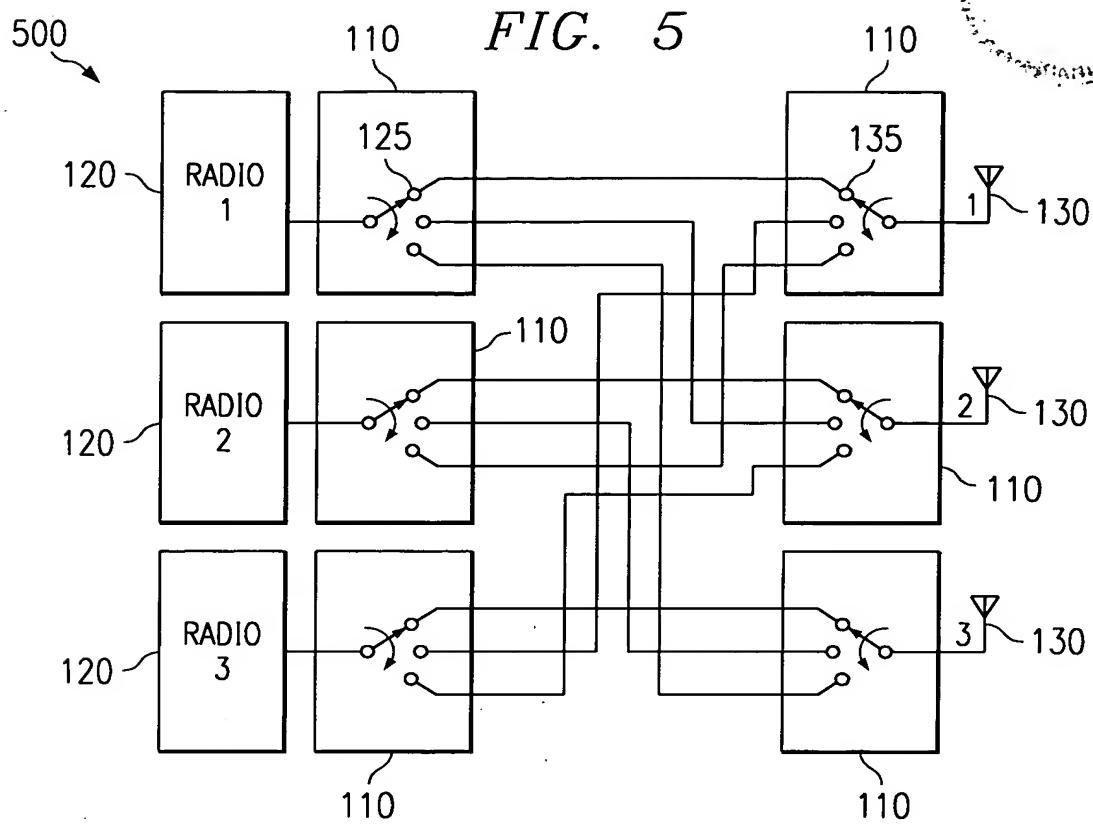


FIG. 6

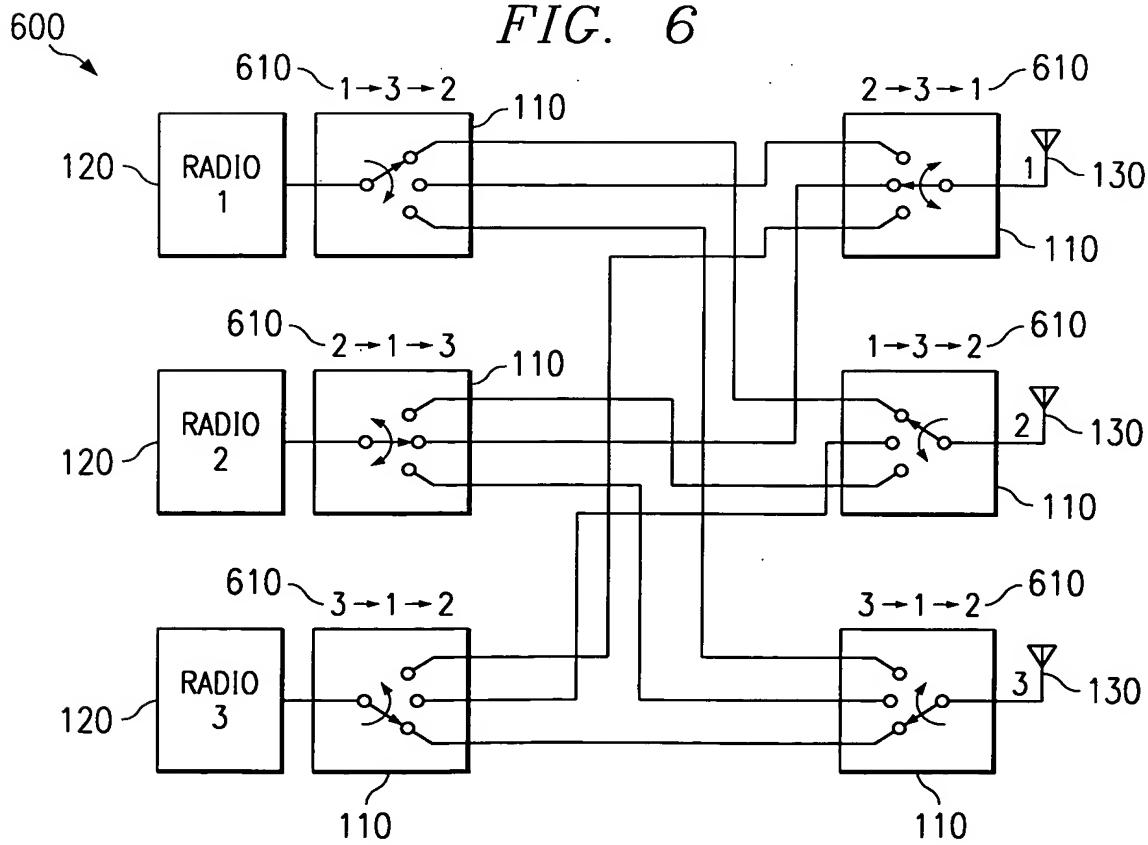
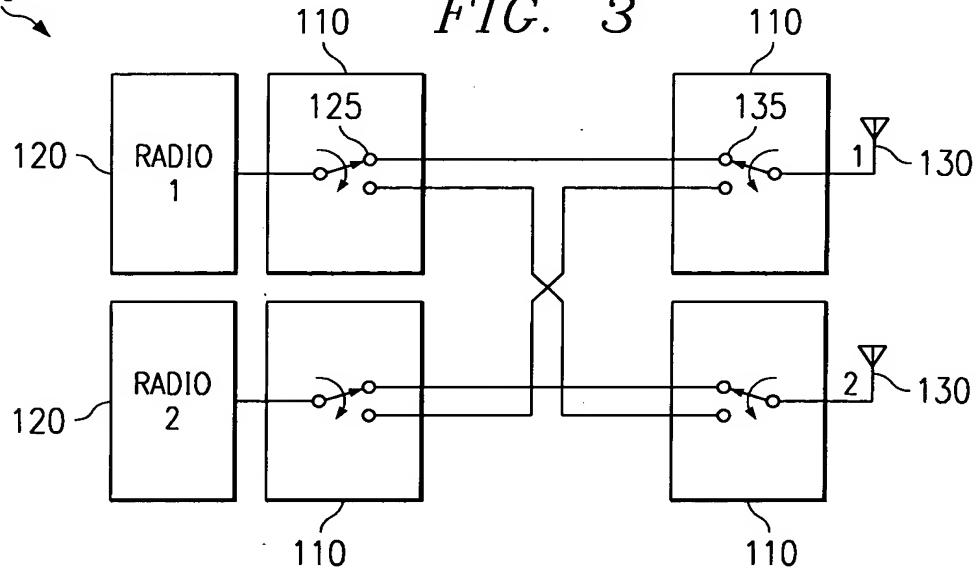


FIG. 2

SWITCHING STATE	CONNECTION1	CONNECTION2	CONNECTION3	CONNECTIONk	...	CONNECTIONN
1	$1 \leftrightarrow 1$	$2 \leftrightarrow 2$	$3 \leftrightarrow 3$	$k \leftrightarrow k$	...	$N \leftrightarrow N$
2	$1 \leftrightarrow 2$	$2 \leftrightarrow 3$	$3 \leftrightarrow 4$	$k \leftrightarrow k_N + 1$	...	$N \leftrightarrow 1$
3	$1 \leftrightarrow 3$	$2 \leftrightarrow 4$	$3 \leftrightarrow 5$	$k \leftrightarrow k_N + 2$	...	$N \leftrightarrow 2$
j	$1 \leftrightarrow j$	$2 \leftrightarrow j_N + 1$	$3 \leftrightarrow j_N + 2$	$k \leftrightarrow j_N + k_N - 1$	...	$N \leftrightarrow j-1$
...
N	$1 \leftrightarrow N$	$2 \leftrightarrow 1$	$3 \leftrightarrow 2$	$k \leftrightarrow k-1$	...	$N \leftrightarrow (N-1)$

300 110 FIG. 3



400 110 FIG. 4

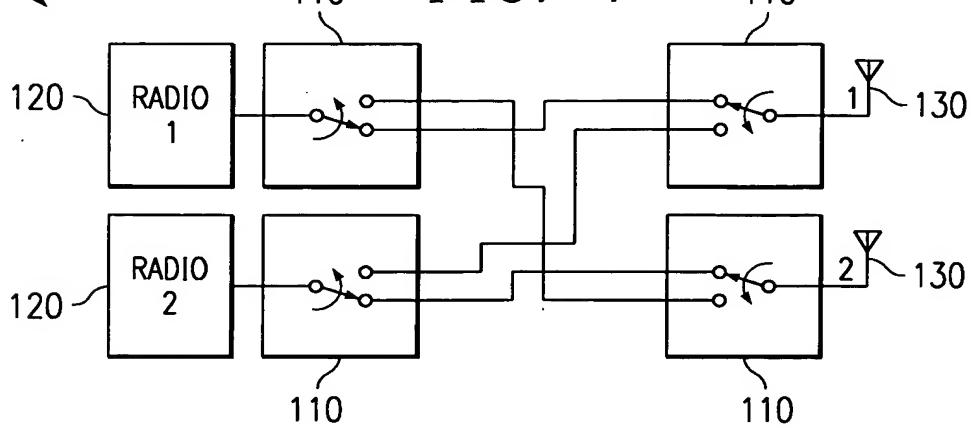
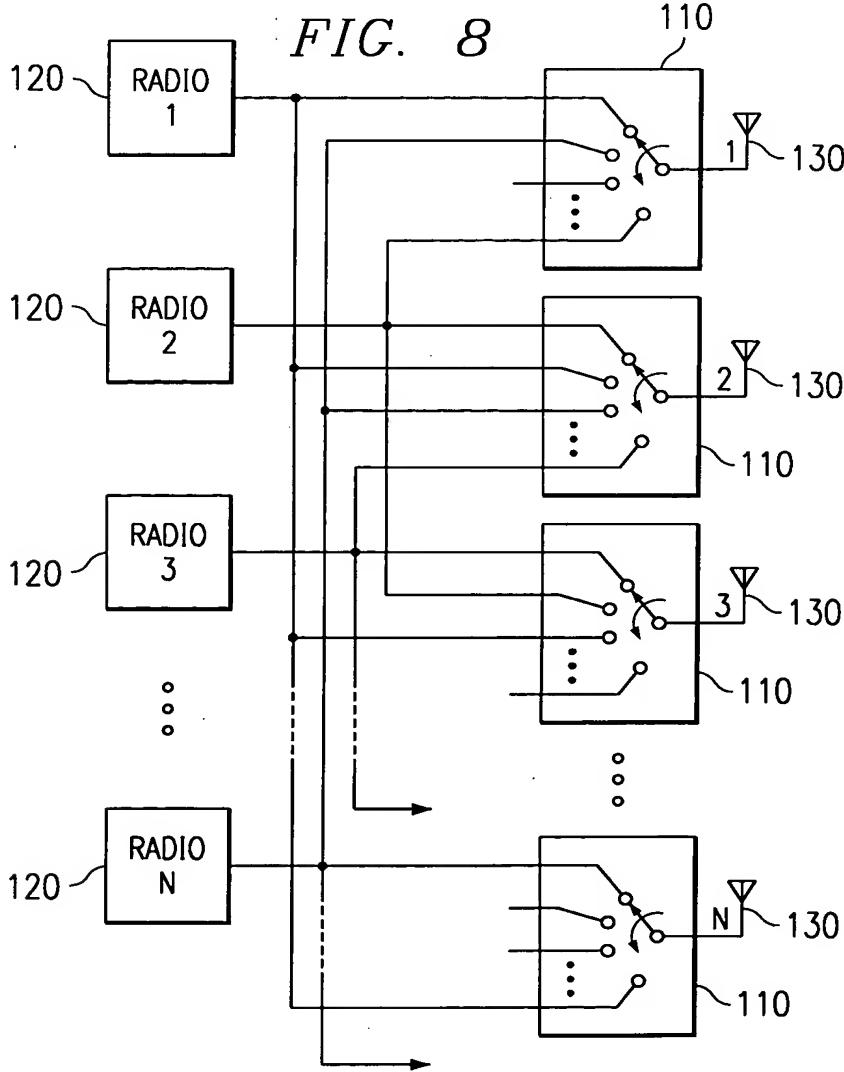


FIG. 7 4/5

SWITCHING STATE	SWITCH POSITIONS				CONNECTION 1	CONNECTION 2	CONNECTION 3
1	R1	1	2	A1	1 ↔ 2	2 ↔ 1	3 ↔ 3
	R2	2	1	A2			
	R3	3	3	A3			
2	R1	3	3	A1	2 ↔ 2	3 ↔ 1	1 ↔ 3
	R2	1	3	A2			
	R3	1	1	A3			
3	R1	2	1	A1	3 ↔ 2	1 ↔ 1	2 ↔ 3
	R2	3	2	A2			
	R3	2	2	A3			

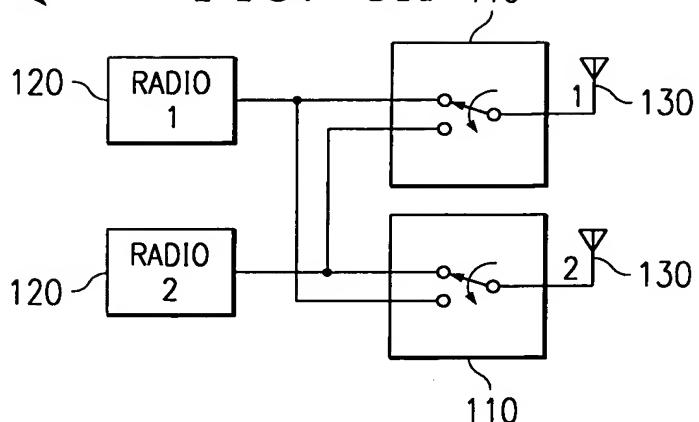
800



5/5

900A

FIG. 9A



900B

FIG. 9B

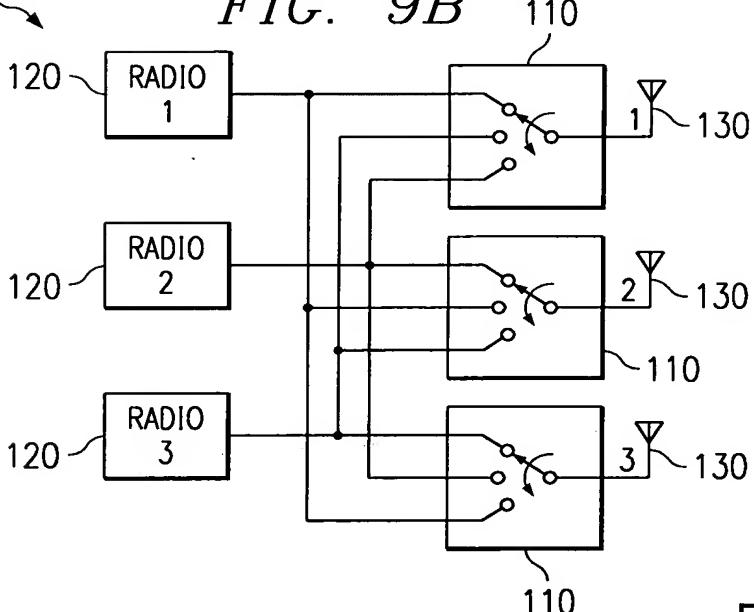


FIG. 10A

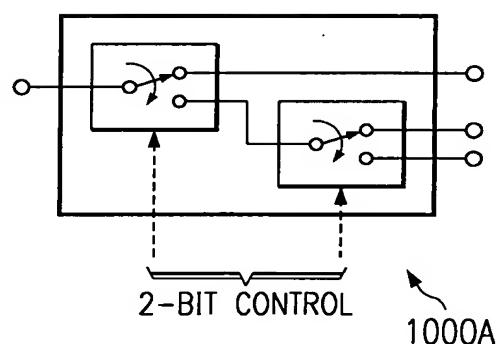
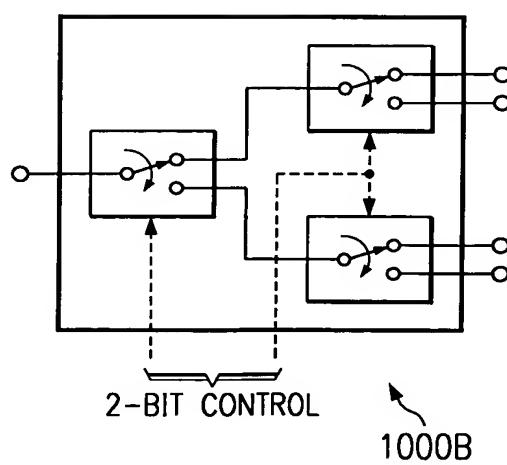


FIG. 10B



1000B 1394 - 040802